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and The Tetris Company, LLC

**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY**

TETRIS HOLDING, LLC and  
THE TETRIS COMPANY, LLC,

Plaintiffs,

- against -

XIO INTERACTIVE INC.,

Defendant.

Case No. 3:09-cv-6115 (FLW)  
(DEA)

Hon. Freda L. Wolfson, U.S.D.J.  
Hon. Douglas E. Arpert, U.S.M.J.

**DECLARATION OF DR. IAN  
BOGOST IN SUPPORT OF  
PLAINTIFFS' OPPOSITION TO  
DEFENDANT'S MOTION FOR  
SUMMARY JUDGMENT**

*Document Filed Electronically*

I, Dr. Ian Bogost, declare as follows:

1. I have been asked by plaintiffs Tetris Holding, LLC and The Tetris Company, LLC (collectively “TH” or “The Tetris Company”)—through their counsel Kirkland & Ellis LLP—to provide my opinions on certain issues in this case.

2. In addition to my previous Declaration in Support of TH’s Motion for Summary Judgment (dated September 29, 2011) in this case, I submit this declaration in support of Plaintiffs’ Opposition to Defendant’s Motion for Summary Judgment. This declaration is based on my personal knowledge and my expertise in the field of videogame studies and design.

3. I am acquainted with Jesper Juul and am familiar with his writings. In particular, I am familiar with his book *Half-Real*, which is an academic book about videogame theory.

4. I am familiar with Dr. Juul’s definition of “rules” as “limitations and affordances” on page 58 of his book *Half-Real*. This definition is simply one of many different academic theories about the definition of “rules” in the field of videogame aesthetics.

5. This definition of “rules” does not include or describe the audiovisual appearance of a videogame, like the visual expression in *Tetris* described in paragraph 21 of my Declaration in Support of TH’s Motion for Summary

Judgment in this case. Rather, as Dr. Juul explains in the same chapter of *Half-Real*, in the case of videogames these “limitations and affordances” are related to computer algorithms, which generally relate to how a videogame is programmed and not how the visual appearance of a videogame is designed.

6. Dr. Juul does not purport to define “rules” in the context of determining copyrightable visual expression of videogames.

7. In any case, Dr. Juul does not address how his definition of “rules” would apply to *Tetris* in particular.

8. I reviewed the deposition testimony of Xio’s proffered expert, Jason Begy, who was retained to respond to my expert opinions and analysis in this case. In his deposition, Mr. Begy testified that an electronic puzzle game can be designed in an almost unlimited number of ways that do not copy *Tetris*. I agree with Mr. Begy’s conclusions in this regard and note that this is consistent with the opinions I offered in Paragraphs 35-36 and 39-48 of my previous Declaration in Support of TH’s Motion for Summary Judgment.

9. For example, when Mr. Begy was asked about the appearance of the playing pieces in *Tetris* at the top of the playing field, he testified that “a game designer could choose a number of different places to make the playing pieces first appear” and that “an electronic puzzle game could function perfectly well if the playing pieces did not first appear at the top of the playing field.” I agree with Mr.

Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

10. Also, when Mr. Begy was asked about the starting orientation of the playing pieces in *Tetris*, he testified that it is possible to design an electronic puzzle game without using the same starting orientation as in *Tetris*. I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

11. In addition, when Mr. Begy was asked about the rotating movement of the playing pieces in *Tetris*, he testified that “a game designer could choose a number of different ways to design the movements of the playing pieces in an electronic puzzle game” and that “it’s not essential in creating a puzzle game to use downward lateral rotating [movements] of the playing pieces.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic video game.

12. Further, when Mr. Begy was asked about the disappearance of a horizontal line from the playing field in *Tetris*, he testified that “to make a puzzle video game, it’s not essential to remove horizontal lines from the playing field,” and “an electronic puzzle game could function perfectly well without removing horizontal lines from the playing field.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic video game.

13. Additionally, when Mr. Begy was asked about the subsequent consolidation of the playing pieces remaining on the playing field in *Tetris* after a line is removed, he testified that “a game designer could choose a number of different ways to configure the playing field after removing objects from it,” and “it’s not essential in designing a puzzle video game to configure the playing field the way Alexey Pajitnov chose to do in Tetris.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

14. Also, when Mr. Begy was asked about the appearance of garbage lines in *Tetris*, he testified that there are “many successful multiplayer video games that don’t use garbage lines” and that such games “function perfectly well without using garbage lines.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

15. Further, when Mr. Begy was asked about the ghost or shadow piece in *Tetris*, he testified that “an electronic puzzle game could function perfectly well without using a ghost or shadow piece.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

16. Additionally, when Mr. Begy was asked about the display of the next playing piece in *Tetris*, he testified that “you don’t need to display the next piece in advance of its appearing in order to make a puzzle video game.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic

puzzle game.

17. Also, when Mr. Begy was asked about the change in color of the playing pieces in *Tetris* when they are in lock-down mode, he testified that “a game designer could choose not to include this change of color in an electronic puzzle game,” and it would still “function perfectly well.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

18. Further, when Mr. Begy was asked about the layout of multiplayer mode in *Tetris*, he testified that “a game designer could choose among several options for the layout of the multiplayer electronic puzzle game.” I agree with Mr. Begy that this visual feature is not necessary or essential to make an electronic puzzle game.

19. Finally, when Mr. Begy was asked about the overall combination of visual elements in *Tetris*, he testified that “an electronic puzzle game could function perfectly well without using the same combination of elements as *Tetris*.” I wholly agree with Mr. Begy that the overall combination of visual elements in *Tetris* is not necessary or essential to make an electronic puzzle game

20. In addition to Mr. Begy’s testimony that the visual features of *Tetris* are neither necessary nor essential to make an electronic puzzle game, Mr. Begy also testified that visual elements of *Tetris* were the result of creative, design

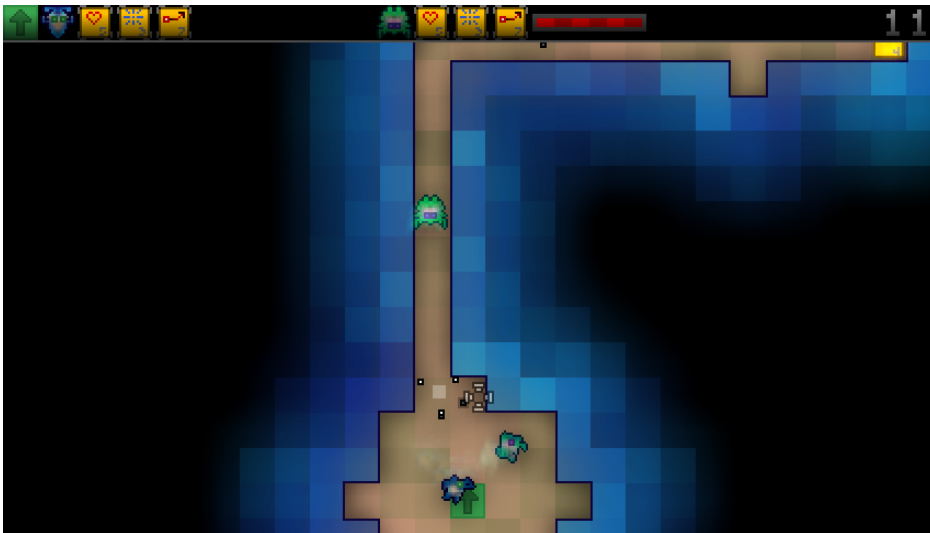
choices. I agree with Mr. Begy's testimony in this respect. Specifically, all of the expressive visual elements discussed in Paragraph 21 of my Declaration in Support of TH's Motion for Summary Judgment were the result of creative choices that were made by Mr. Pajitnov and other *Tetris* designers. In other words, with respect to each of these visual features, any number of alternative designs are possible and *Tetris* is the result of the specific design choices, and combination of choices, that were made to create *Tetris*.

21. Mr. Begy also asserts that because the *Tetris* Demo does not use graphic files in rendering its visual expression, the work is not creative. However, in my opinion, the *Tetris* Demo is a creative work, which includes fanciful visual expression, including certain visual elements listed in Paragraph 21 of my Declaration in Support of TH's Motion for Summary Judgment.

22. In my experience, creative digital works can be made in any number of ways. For example, I am familiar with videogames and other digital art that are made using no graphic files at all, but rather are made using computer code to render the images on the screen. In other words, the designer does not draw the picture or images in a graphic file, but rather programs source code that instructs the computer to draw the visual imagery on the screen.

23. For example, in Jason Rohrer's videogame *Inside a Star-filled Sky*, nearly every visual element in the game, including the appearance of different

levels and the characters, as well as the game's music and audio elements, are generated by source code rather than by prepared graphic files or sound files. Below are two screenshots from this videogame, which illustrate that it has creative visual expression just like other videogames that use graphics files to render their imagery.



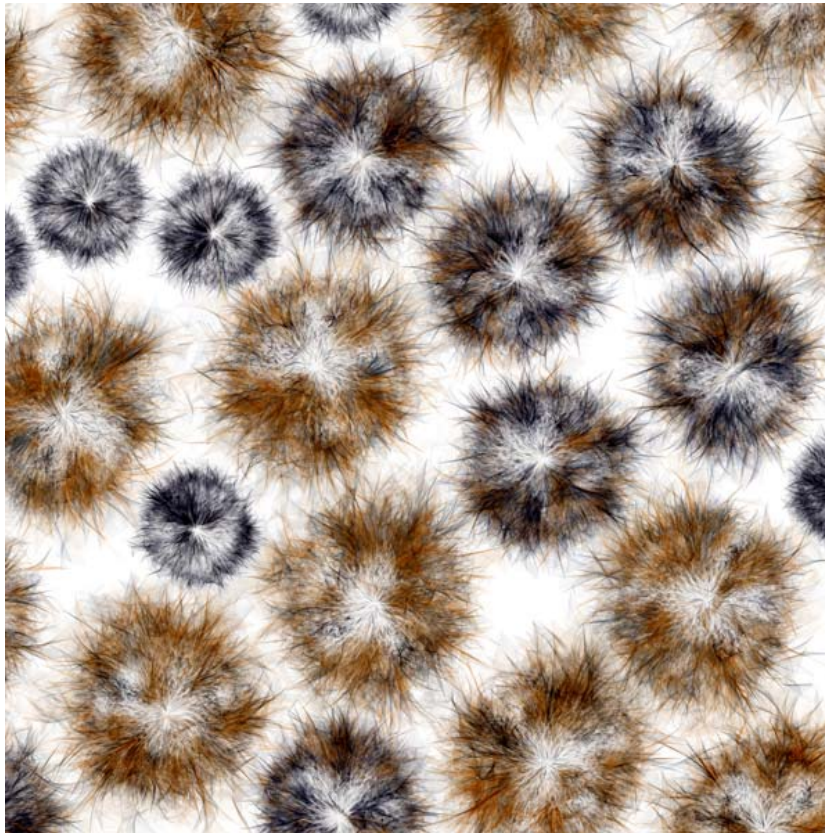
**Opp. Figure 1** (*Inside a Star-filled Sky*, first screenshot)



**Opp. Figure 2** (*Inside a Star-filled Sky*, second screenshot)



24. As another example, I am also familiar with a digital artist, Casey Reas, who makes works of art solely based on programming computer code to render the art. The resulting work (an example of which is pictured below) has creative visual expression just like other forms of digital art that may use graphic files.



**Opp. Figure 3 (*Process 6 (Image 3, 4)* by Casey Reas)**

25. I would also like to respond to Xio's contention that having all playing fields equally sized in multiplayer versions of *Tetris* would unnecessarily confuse the players. This contention makes no sense because there are many multi-player puzzle games that feature playfields that are equally sized. For example, as explained in Paragraph 9 of my Declaration in Support of TH's

Motion for Summary Judgment, the *Columns* game features two playing fields that are equally sized:

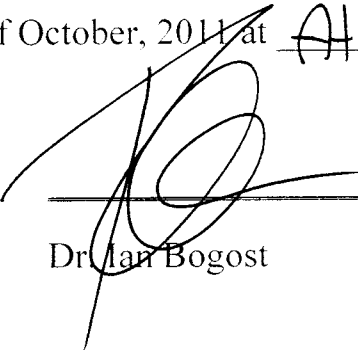


Opp. Figure 4 (*Columns*)

[CONTINUED ON THE NEXT PAGE]

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed this 24th day of October, 2011 at Atlanta, Ga.

  
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Dr. Ian Bogost